

## DETONATOR SYSTEM HAVING LINEAR ACTUATOR

### ABSTRACT OF THE DISCLOSURE

Disclosed is a detonation initiator that can form part of a demolition  
5 assembly. The detonation initiator can include a linear actuator assembly having  
a core with a permanent magnet disposed with respect to a coil, and a firing pin  
coupled to the core and disposed along a longitudinal axis of the linear actuator  
assembly. A capacitor can be used to store electrical energy derived from an  
electrical pulse received by the detonation initiator. An electrical circuit can be  
10 used to monitor the charge on the capacitor and to discharge the capacitor  
through the coil of the linear actuator assembly to propel the core along the  
longitudinal axis of the linear actuator assembly when the charge on the  
capacitor reaches a charge threshold.

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